

CLAIMS

What is claimed is:

- 1 1. A method, comprising seaming together two or more data streams, each made up of a
2 number of packets, received from a content source across one or more computer networks
3 using an unreliable media transmission protocol at a proxy disposed between the content
4 source and one or more content consumers so as to provide one or more output data streams
5 to the one or more content consumers that include fewer missing packets than any individual
6 one of the data streams being received at the proxy from the content source.
- 1 2. The method of claim 1 wherein seaming comprises including packets from at least one of
2 the data streams received from the content source in the output data streams.
- 1 3. The method of claim 1 wherein the transmission protocol comprises real-time
2 transmission protocol (RTP).
- 1 4. The method of claim 1 wherein at least one of the content consumers comprises a plug-in
2 for a Web browser.
- 1 5. A method, comprising opening one or more additional connections between a content
2 consumer and a content source in response to an indication that data loss has occurred over
3 one or more existing connections between the content source and the content consumer.
- 1 6. The method of claim 5 wherein the one or more additional connections are opened
2 between the content source and a proxy disposed between the content source and the content
3 consumer.

1 7. The method of claim 6 wherein the proxy seams together data streams received from the
2 content source across the additional connections before passing a resultant seamed stream to
3 a subsequent content consumer.

1 8. The method of claim 7 wherein the proxy constructs the seamed stream by filling in
2 information gaps in any of the data streams received from the content source with content
3 derived from others of the data streams received from the content source.

1 9. The method of claim 8 wherein the content is derived from others of the data streams on
2 the basis of contents of packets from each of the data streams received from the content
3 source.

1 10. A method, comprising seaming together a recording of streaming content downloaded
2 over one or more occasions from a content source in response to an indication that data loss
3 has occurred during playbacks from the content source.

1 11. The method of claim 10 wherein the downloads occur over multiple connections between
2 the content source and a proxy disposed between the content source and one or more content
3 consumers.

1 12. The method of claim 11 wherein the proxy seams together data streams received from
2 the content source across the multiple connections before storing a resultant seamed stream
3 to a computer readable medium.

1 13. The method of claim 12 wherein the proxy constructs the seamed stream by filling in
2 information gaps in any of the data streams received from the content source with content
3 derived from others of the data streams received from the content source.

- 1 14. The method of claim 13 wherein the information gaps are filled in with reference to
2 timestamps and/or packets sequence numbers of packets of the data streams.
- 1 15. The method of claim 14 wherein the timestamps and/or packet sequences numbers are
2 normalized before the information gaps are filled in.
- 1 16. The method of claim 10 wherein at least one of the occasions corresponds to a time
2 other than during or due to a user request for the streaming content.
- 1 17. The method of claim 16 wherein the at least one of the occasions corresponds to a
2 prefetching operation.
- 1 18. The method of claim 16 wherein the at least one of the occasions corresponds to time of
2 reduced network congestion.
- 1 19. A proxy configured to seam together two or more data streams, each made up of a
2 number of packets, received from a content source across one or more computer networks so
3 as to provide one or more output data streams to one or more content consumers that include
4 fewer missing packets than any individual one of the data streams being received from the
5 content source.
- 1 20. The proxy of claim 19 wherein seaming comprises including packets from at least one of
2 the data streams received from the content source in the output data streams.